

DOCUMENT RESUME

ED 094 720

IR 000 916

TITLE Visuals for Villagers.
INSTITUTION Agency for International Development (Dept. of State), Washington, D.C.
PUB DATE 74
NOTE 58p.
EDRS PRICE MF-\$0.75 HC-\$3.15 PLUS POSTAGE
DESCRIPTORS Charts; *Instructional Materials; Manuals; Material Development; *Rural Education; *Visual Aids; Visual Arts
IDENTIFIERS *Agency for International Development

ABSTRACT

Guides and suggestions for village workers in the preparation of visual aids are supplied to assist in the introduction of new ideas to rural families. The information included is taken from the "Multiplier Handbook" produced by the Agency for International Development. The manual is designed to be of use to extension and community development workers, rural teachers, health workers, and others dealing with rural people. The instructions are accompanied by many pictures and illustrations. The topics covered are lettering, layout, chalkboards, felt boards, bulletin boards, magnet boards, charts, posters, flip charts, and exhibits and displays. (WH)

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VISUALS

FOR VILLAGERS

Department of State
Agency for International Development
Washington, D. C. 20523

IR 000 9/16

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Visuals for Villagers is written for village workers to use with rural people. They may be Extension or Community Development workers, rural teachers, health workers, or others who are trying to introduce new ideas to rural families.

It is often necessary for the teacher to prepare his own visuals to make the message clear. Therefore, this booklet contains ideas for teaching aids that are easy for the amateur with limited resources to make and use.

Information included in Visuals for Villagers is taken from the Multiplier Handbook, produced by the Agency for International Development (AID) and its predecessor agency. Much of the material presented in the earlier publication is as useful today as when it was first written.

Individuals involved in technical assistance programs, who used the earlier publication on visual aids, have often sought to find copies. This publication is issued to help those people and others in the field.

Lettering

HAND LETTER WITH INK OR PAINT

There are many ways to hand letter, using paint or ink. When you decide to letter your materials in this manner, you may use any of the following:

Brushes

Brushes are found in two styles—round and long—and are in various sizes.



Lettering Pens

Lettering pens are usually made with four styles of points:



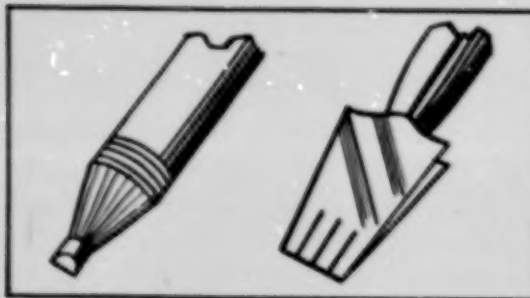
square ball shading elliptical

Felt Tip Pen

Another pen for rapid lettering on paper, glass, cloth, wood, metal, or plastic.

"Duckbill" Pens

The "Duckbill" will provide you with a wide stroke and can be used for rapid lettering.



felt tip pen

duckbill pen

There are several kinds of paint available in the preparation of display materials. Most dealers and several commercial houses carry paint in bottles, jars, and tubes. Water color sets are common in most places.



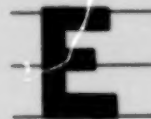
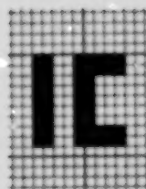
India ink is especially useful in lettering since other types of ink are usually too transparent. This ink can be used both with pens and brushes. For the felt tip pens, you can buy small cans of ink.



For rapid coloring, crayons can do a good job.



Remember that there are three ways for you to make neat, straight letters with materials which you may find around you. You can use graph paper, newspapers, or ordinary lined paper. Mark out your letters, ink them, and then cut them out. Or, you may want to leave them on the background from which they have been made.



Suggestions

It is recommended that you use India ink in lettering.

When you are using water colors or poster board colors, be sure the color will stand out from the color of the background material you are using.

YOU CAN MAKE LETTERS

If you decide that you would like to make your own lettering, there is a variety of ways for you to do it. In hand lettering, there are certain steps which you should take to assure a neat job.

draw guidelines for all lines to be lettered



sketch in letters to get right spacing. Use soft lead pencil.



Now you are ready to paint or ink in the letters.

Erase the guidelines when you are finished.

Size of lettering is all-important in preparing flip-charts, posters or other display materials. The following chart is for your convenience in determining minimum letter or number sizes to use when preparing materials:

<i>Viewing Distance</i>	<i>Letter or Number Size</i>
64 ft.	2 inches
32 ft.	1 inch
16 ft.	$\frac{1}{2}$ inch
8 ft.	$\frac{1}{4}$ inch



Suggestions for Lettering—

- A. Use upper case (capital) letters for better legibility.
- B. Guidelines lightly drawn on the backing material will help in keeping uniform height of all letters.
- C. Remember that for legibility, the larger the letter, the thicker it should be.

NOTE: The above information should apply for any lettering which is going to be hand-printed.

CUTTING LETTERS FROM READING MATERIALS

Wherever you may be, you will find several materials available to make your lettering problems easier. You can cut letters from newspaper headlines and advertising, magazines, brochures, advertising posters, catalogues, calendars and other printed mater.

By collecting these letters, you will soon have a sizable number of letters, which you can store in envelopes or letter storage boxes. By keeping various sizes of letters separated, your lettering paste-ups will be made rapid and easy.

Following are some cutouts showing various styles and sizes:



calendars



magazines



newspapers

HEAD
HEAD
HEAD

EEEE
TTTTUU

catalogues

CUTTING LETTERS FROM COLORED PAPER

If you don't want to cut out the printed material you would like to use, you can trace them on plain or colored paper and cut them from that.



Shadow effects on colored paper can be made by cutting two colors at the same time and offsetting them when you paste them up.

READY-CUT LETTERS

There are several kinds of ready-cut letters available at art stores or from commercial sources.

You can obtain ready-cut letters in many sizes and styles. Any of the following kinds of letters can be purchased in sets:



Wood or masonite cutouts are smooth, natural wood or colored.



Cardboard cutouts are available in a variety of sizes.



*front
tile letter*

*glue
backs*

*pin
backs*

Tile letters have either pin backs or adhesive backs for adhering to background

Gummed paper letters are made in various sizes, styles and colors.

Cork letters can be painted with show-card colors, washed and repainted. They are backed with glue and will adhere to wood, metal, plastic, paper and glass.

Plastic cut letters come in block style and are limited in color and size. They have adhesive backing and can be re-used.

When using cut letters, space them on backing material. For aligning use straight-edge. Pick up one letter at a time, and adhere with rubber cement or prepared adhesive.

Layout

PLANNING LAYOUT FOR VISUAL MATERIALS

When planning layout of any display material (posters, bulletin boards, exhibits, etc.), you should consider the following:

What type of material can be most effectively used?

What combinations of material will complement each other?

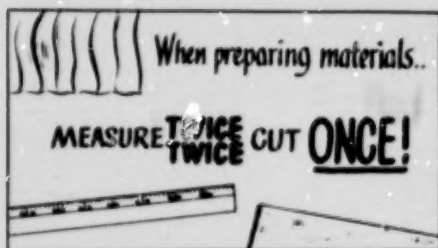
Is the layout simple, yet meaningful, and can it reach the viewer?

Is the material timely?

The following examples may give you some ideas for future use:



For books, you can cut out colored paper or use book jackets.



Cloth, plywood, or drawings can be used to show types of materials.



Safety posters like this serve as good reminders. Sketched faces, cutouts or photographs can be employed.

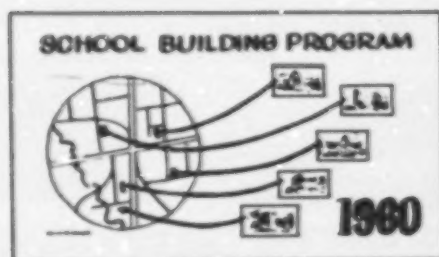


Dark and light brown paper placed in alternate strips could be made to represent furrows. Drawings or photographs could be used for the figures.



Photographs are always appealing. Make them relate directly to the theme of the display.

Remember that simplicity in ideas and layout, with a little imagination can often result in an attractive and meaningful visual.



Cutouts of maps can be effectively utilized. Ribbons fastened from points on the map to photographs are eye-catching and attractive.



Bulletinboards or posters giving notice of filmshowings, demonstrations, or meetings can be made so that they may be used several times by merely replacing dates, titles or other pertinent information. Repetitive use can create an attitude of recognition and association on the part of the viewers.



Often the "right-and-wrong" of doing things will help the viewer to retain the ideas you want him to remember.



Notice how cause and effect have been combined in this poster, to get a single idea across . . . that fire is a dangerous thing.



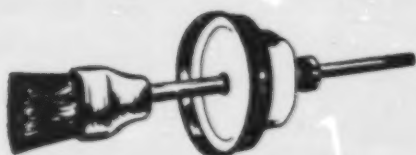
A portion of a chart developed in Libya to be used by nurses and doctors to test eyesight of people of all ages. Symbols which can be recognized by viewers are as useful and effective as words or letters.

MOUNTING MATERIALS WITH RUBBER CEMENT

You may have certain flat materials which you want to use for demonstrations, display, or filing. These same materials may be handled by great numbers of people. To assure long use of photographs, drawings, charts, newspaper materials, and other flat visuals, it is best to mount them. One such way is mounting with rubber cement on a stiff backing material.

Materials needed for this process are few and are usually easy to get. They are:

scissors	eraser
ruler	rubber cement
sharp pencil	bristol or poster board



Proceed as follows:

1. Cut the material to be mounted to desired size.
2. Place the material in position on the mounting board. If the material tends to curl, be sure it is flat before making the corner marks.
3. Now place the material face down on an old newspaper or magazine and brush cement on smoothly over the complete back of the material. Do not let cement get on front of the material as it may damage or even ruin it.

4. Next, brush rubber cement on the area of the mounting board which the material will cover.
5. After the cement has started to dry on both the material and the mounting board, place the material face up, in position on the board.
6. Place a clean piece of paper over the material and smooth all the area over the material firmly with your hand.
7. Corner marks can be erased and rubber cement found along the edges of the mounted material can be rubbed away with the fingers.



For your information:

- Mounted materials are easier to use for display and opaque projection
- They are flat and can be seen more easily
- They are more attractive
- They are easier to handle and file
- Edges of materials are protected

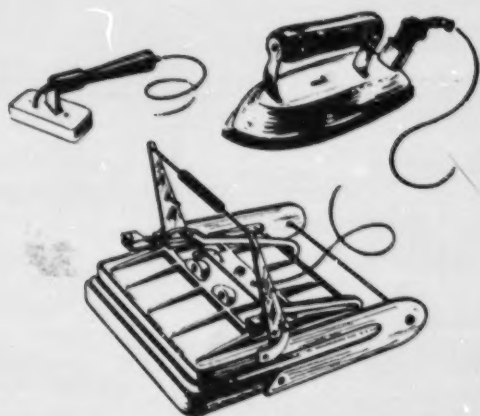
NOTE: For temporary mounting, put cement only on the material to be mounted.

DRY MOUNTING PROCESS

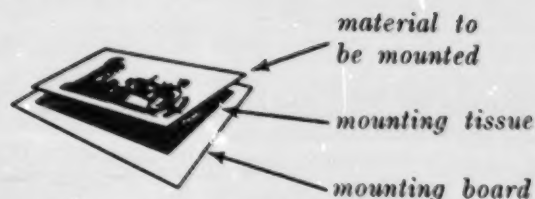
The dry mounting of photographs, drawings, charts and other flat materials is a clean and rapid process, if you have electricity, certain materials and tools to work with. The mounting tissue used is covered on both sides with shellac. When the tissue is placed between two pieces of paper material, and heat is applied under pressure, the shellac melts, adhering the pieces of paper together.

Materials needed in this process are

- Dry mounting tissue (can be purchased in various sizes at most photographic stores)
- Mounting materials (usually thick, smooth cardboard).
- Scissors or paper cutter
- Electric iron, tacking iron or a dry mounting press



Flatirons, heated over fire, can also be used for adhering your material to the mount with tissue.



The procedure is very simple for dry mounting:

1. Fasten a sheet of mounting tissue on the back of the material to be mounted with tacking iron or electric iron. The tissue should be fastened in the center, to permit cutting around the edges of the material.
2. Cut the picture with the attached tissue to the desired size.
3. Place the picture face up in position on the mounting material.
4. Lift the upper right hand corner of the picture, and tack the tissue to the mounting material. Repeat this process at the lower left hand corner.
5. Cover the picture and the mounting material with a clean sheet of paper. Either place it in the dry mount press, or iron with an electric iron for approximately 10 seconds, moving the iron over all the surface of the material.

Suggestions for you:

Store dry mounting tissue in a cool dry place to keep it usable.

If tissue does not adhere to the mounting board, the iron is not hot enough

If tissue does not adhere to the material, the iron may be too hot.

Practice and experience will solve your mounting problems.

WET MOUNTING PROCESS

There are certain kinds of flat materials which you can use often and which you need to carry with you from place to place. One way in which you can protect these materials and make them usable for a longer period of time is by adhering or backing them with cloth. Maps, charts, sketches, blueprints and similar materials when properly backed with cloth can then be easily rolled, carried or stored.

Materials needed for the wet mounting process are usually available. They consist of the following items:

—Wheat flour paste. The flour should be kept in a jar with a perforated top, so that it can be sprinkled into the water as you make the paste. This makes the flour easy to handle and prevents lumps of flour from falling into the water.

—Dishpan, chemical tray or similar pan is needed for mixing the paste.

—Paint brush for mixing and applying paste. Should be at least a 3" brush.

—Unbleached muslin, old flour or sugar sacks make good backing material.

—Thumb tacks, carpet tacks or good grade of adhesive tape can be used to fasten the cloth to the flat surface.

—A wooden or plastic rolling pin or similar smooth cylinder will be needed to roll the material flat on the cloth.

—Pail, pot or tub to soak the material to be mounted.

—Sponge or cloth to be used in wetting the back of the material.

—A smooth, flat surface on which to stretch the cloth, and fasten it.

Now you are ready to wet-mount the material.

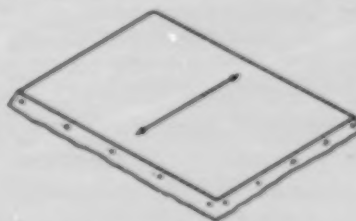
Prepare the cloth for backing.

1. Be sure the cloth is cut slightly larger than the material to be mounted.
2. Soak the cloth in water. Be sure that all of the cloth is wet. Then twist the cloth to remove excess water.
3. Stretch the wet cloth evenly on the flat surface. Smooth it across the surface so that there are no wrinkles or air pockets between the cloth and the surface.
4. Fasten one corner, then stretch the cloth firmly and fasten the two adjoining corners.



*pull cloth
tight before
tacking 2 and 3*

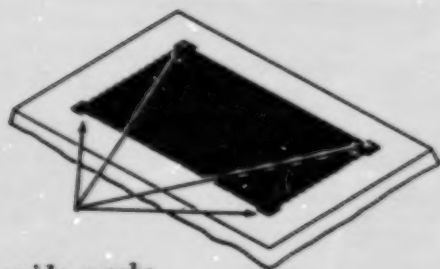
5. Fill in the thumb tacks every 10-15 cm. apart. Start by placing a tack in the center of each side. Each time a tack is placed, place another tack on the opposite side.



*After you have
tacked one point
you should tack on the opposite side to
keep cloth stiff.*

Now divide the distance between tacks in half until all spaces are filled in and the cloth is firmly fastened to the surface.

6. Look carefully for wrinkles or air pockets. If you find them, they can be removed by taking out tacks, pulling the cloth tighter, and tacking again.
7. Place the material to be mounted on the cloth surface and make corner marks with a pencil to show the area the material will cover on the cloth.



*place guide marks
on all corners*

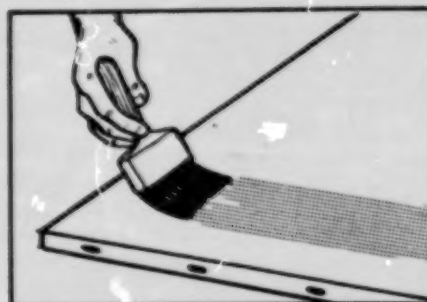
NOTE: The cloth you decide to use may be dyed or may be used in its original color.

Prepare the paste

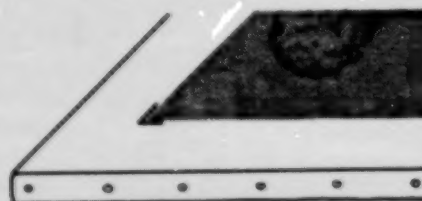
1. Pour about $\frac{3}{4}$ cup of water into the pan.
2. Sift the flour from the jar into the water, stirring all the time with the brush. Mix the flour and water thoroughly until the paste looks like very thick soup.
3. Two tablespoons of sizing may be put into the paste if the material being mounted is a hard-finish surface. This makes the material adhere to the cloth better.

Prepare the material for mounting

1. If materials to be mounted have colors which may come off when the material is dampened, then the material should be sprayed with either wall paper lacquer or plastic spray.
2. Place the material to be mounted face down on a clean surface. Using a sponge or cloth, wet the back, until it is completely soaked.

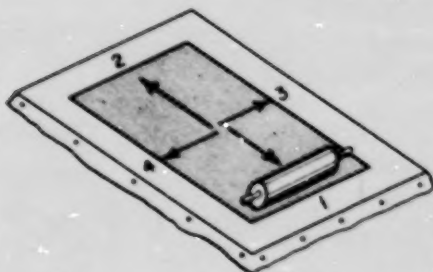


3. Brush the paste all over the area on the cloth which the material is to cover. Be sure the paste is applied evenly. You may want to use a piece of cardboard to smooth the paste on the cloth or to remove any excess paste.
4. Go back to the material to be mounted. Stretch it smooth and wipe off excess water.
5. Place the material with printed side up on the cloth, using the corner marks as guides. Try to keep paste off the printed surface.

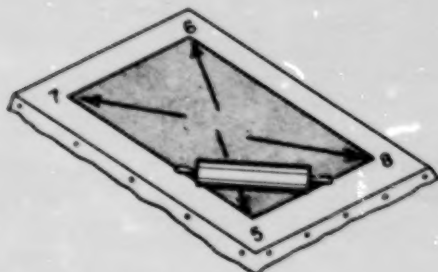


Adhering the material to the cloth.

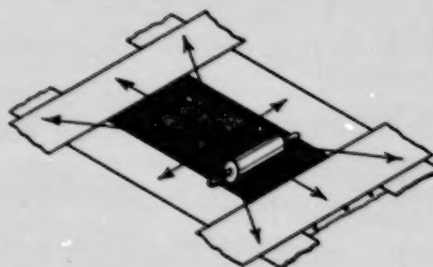
1. A set pattern in rolling will keep the material from being stretched out of shape and will remove air pockets between the material and the cloth.



2. Roll from the center of the material to the margin opposite you. *Do not go over the margin, at any time yet, or you will get paste on your roller.*



3. Now roll from the center to the margin nearest you. Continue rolling next to the left or right margins.
4. Lift the corners of the material to keep material from stretching because of rolling.
5. Roll from the center to each corner. After you have finished rolling all corners, the most of your material is smoothly mounted.



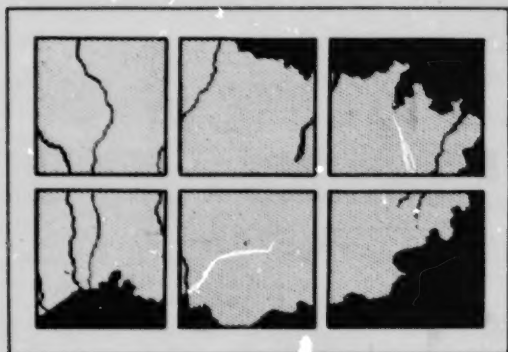
6. Place paper strips over all margins of the material, as well as over the cloth border. Roll in all directions from the center as you did before, but this time, roll to the edge of the paper, covering the margins.
7. Lift the paper strips off. Wipe away any excess paste on the cloth border with a damp cloth.
8. Look for any paste on the face of the material mounted, and remove it immediately.
9. Look for any wrinkles or air pockets you may have missed while rolling. These may be removed by rubbing your hands on the surface of the material from the center toward the margin. Care should be taken when rubbing your hands on the material, because it is still wet and may easily tear.
10. Allow the material to dry thoroughly before you remove it from the surface on which you mounted it.
11. Now remove the tacks, and trim the excess cloth from the edges of the material.

NOTE: You may either leave a cloth border, or you may want to cut right to the edge of the material.

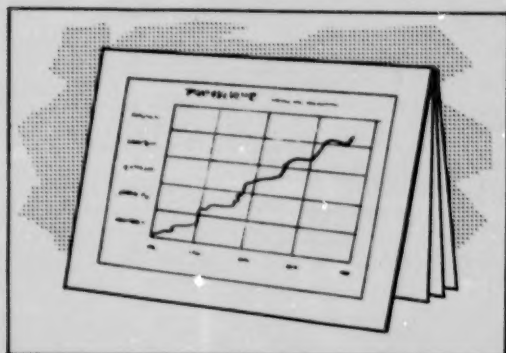
**SUGGESTED MATERIALS WHICH
CAN BE PREPARED BY THE
WET MOUNTING PROCESS**



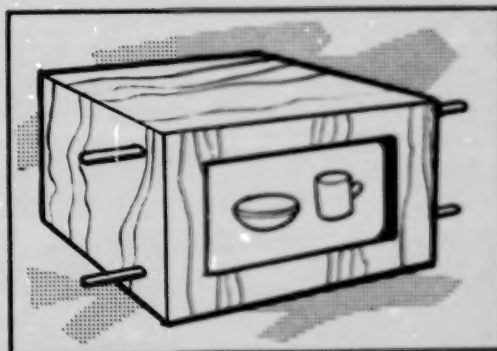
*materials for
opaque projector*



sectioned maps



turnover charts or maps



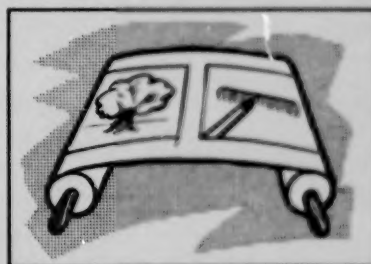
scroll or 'tv' box



photographs or drawings in booklets



picture collections



picture stories with scrolls

Blackboards or Chalkboards

YOU CAN MAKE A BLACKBOARD

Portable blackboards are especially useful for field demonstrations because of their compactness and ease in handling. Below are three kinds of portable blackboards that can be made.

Cut a rectangle of good oilcloth to the desired size. Roughen the glossy surface with a medium grade sandpaper. Apply a coat of blackboard paint or flat black or green paint and let dry thoroughly. Then add a second coat.

A thick piece of cotton cloth may be used. Paint one side with a thin coat of carpenter's glue. After the glue is dry, apply two coats of paint to the glued side. Be sure the first coat of paint is dry before applying a second one.

Curtains which are in good condition may be utilized as blackboards. Again, apply two coats of paint, letting the first coat dry thoroughly.

Next, fasten a cylindrical wooden rod to one of the long sides of the blackboard. The rod should not exceed one inch diameter and should not project beyond the edges of the material. Connect both ends of the rod with a piece of twine so that the blackboard can be hung. Finally, in rolling up the board, roll it over with the painted side on the inside.

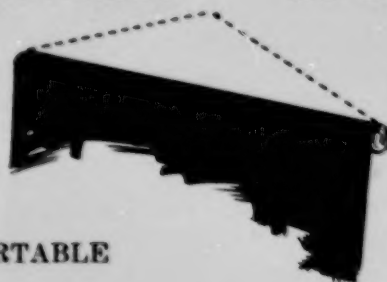
Stiff blackboards can be made from linoleum, plywood, masonite or similar materials. Whether the surface is shiny as with linoleum or rough as it might be with plywood, it should be sanded carefully to an even roughness. Flat green

or black paint, or blackboard paint should be applied in two separate coatings. Just be sure that first coat is dry before applying the second one.

A good wooden frame around your stiff blackboard will help prevent warping, give it more permanency, and improve its looks.

BLACKBOARDS

CAN BE



PORTABLE

OR



PERMANENT

AND . . .

THEY ARE EASILY MADE!

NOTE: It is suggested that you go over the blackboard with an erasure containing chalk powder, so that future erasing will be easier. For audiences of approximately 15 people, you should make a blackboard which is a minimum of 22"x30" (55x75 cm.)



PLACEMENT OF THE BLACKBOARD IS IMPORTANT

- Lower edge of the board should be at the level of the viewers' eyes.
- From the center of the board a 60° angle should be considered for the audience' setting area.
- The closest viewers should be a minimum of 3 meters (9 ft.) from the board.
- Be sure the light source does not cause reflections on the board.



Here are three ways to accentuate words or numbers.



Sizes of letters on a chalkboard are important. A letter 3 cm. tall can be read at 10 meters. Letters 6 cm. can be read at 20 meters. Width of the letter should be at least one-seventh the height of the letter. Lower case letters should be two-thirds the height of capital letters.



Use string to draw circles or other curved lines.



Stick figures in chalk are easy to do.

(Edited from 'Make Effective Use of the Blackboard' — Inter-American Institute of Agricultural Sciences of the O.A.S.)

CHALKBOARDS

As an "active" visual, the chalkboard offers you the opportunity to write words and draw pictures and diagrams which can greatly add to the effectiveness of your presentation.

The uses for a chalkboard are limited only by your imagination. You can summarize the main points of a talk; write down key words for emphasis; sketch diagrams of irrigation systems, farm building arrangements and crop rotations; draw pictures of people and animals to add interest to your talk; write out directions for mixing and using chemicals for controlling locusts; and develop a story or lesson point by point.

Using a chalkboard not only increases audience interest and understanding but speeds learning and gives the teacher increased poise and self confidence.

(Edited from "Using Visuals in Agricultural Extension Programs" ICA.)

NOTE: An even better chalkboard, but a more expensive one, can be made by substituting cement for clay and reinforcing it with chicken wire. In preparing the cement mixture, about 1 part of cement to 3 parts of sand to 1 part of lime should be used.

MAKING A CHALKBOARD

The children who are to use the chalkboard in a given room must be kept in mind as you make your plans for building it. Never should a child need to stand on tiptoe to reach the board, nor should the board be high above the eye level of the assembled group. Experience has taught that in a primary school room the chalkboard should be approximately 28 inches from the floor.

In the intermediate grades 32 inches from floor level is convenient, while in the upper grades and in high school a board 36 inches from the floor is best. It was for this last group, fast approaching mature height, that the Audio-Visual Aids Class in a Winter Workshop in Kabul, Afghanistan built the chalkboard described below in one of the classrooms at Darul-Mo'Allamein. We chose a side of the room for the chalkboard where the glare of natural light from the windows would be least. Along that wall, using a straight edge, we measured and marked off a rectangular space 4 ft. by 10 ft. running horizontally an even 36 inches above floor level. This area we framed with a narrow, neatly outlined border of hard clay, which was later painted to match the walls. In other countries where forests abound, a wooden frame $\frac{1}{2}$ inch by 2 inches might be used to set off the chalkboard area with fine emphasis.

Great care was taken as we prepared the wall inside the frame to receive the prepared mixture which would later be smoothed out to serve as the writing surface. With "hammer and tongs" we chip-

ped away part of the original mud and plaster wall to a depth of about two centimeters. This made a rough surface to which the clay mixture would adhere firmly.

Good quality natural clay, obtained everywhere locally, was first put through a sieve made of window screening. By this process, small stones, grasses and other impurities were removed. To this fine smooth clay now free of lumps we added enough water to make a mixture of paste-like consistency. Next, we added cattails (gula-lock) in sufficient quantity to make a sticky binding substance. In this manner we forestalled any excessive cracking of the surface of the clay.

With a trowel, we applied the prepared mixture to the area of the wall that had been chipped out. In so doing we spread enough of the clay mixture to make the surface of the chalkboard even with the adjoining wall surfaces. During this process we were extremely careful to make the surface of the clay as smooth as possible. We learned that we could succeed in this effort by keeping the surface wet while troweling. Frequently, we dipped the trowel in water and sprinkled water on the surface of the mixture with our fingers. This smoothing of the intended writing surface is a most important part of the construction job.

After three or four days of drying, the chalkboard was ready to paint. A satisfactory black paint was made by using $1\frac{1}{2}$ parts of kerosene to 1 part varnish to 1 part of lamp-black. This was applied by brush.

USING CHALKBOARDS EFFECTIVELY

Although it is a very simple tool, the chalkboard can be a most effective visual device. There are certain basic techniques which you can apply, to insure successful use of the board in your presentation.



Here are a few suggestions and points to remember:

1. Be sure the blackboard is in a position where all viewers can see it and where there is sufficient light. Remember that reflections on a chalkboard make the materials hard to look at.
2. **PLAN AHEAD.** Practice your demonstration . . . get comments from your fellow workers or friends. First gain the confidence of your audience and proceed in your planned order.
3. Write clearly and large enough so that the viewers at the back of the group can see too. Printing of letters is preferable. To get neat, straight lines just rub chalk on a piece of string and position it on the board (someone can help you hold the string). When positioned, take hold of the center of the string, pull it back 2-3 inches and let it snap back. Chalkdust will come off the string and leave you a straight line. A straight edge can also be used.

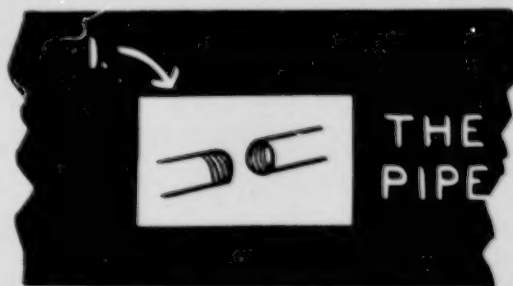
4. You can accentuate lines by using the chalk sideways. Words or symbols can be emphasized by underlining, circling or putting them in a box.
5. Outlines of objects can be cut from cardboard or paper and outlined on the board with chalk. These materials will be useful if repeated demonstrations are required.
6. Colored chalk can also be used to point up objects or words.
7. The blackboard should be kept clean. Washing it frequently will keep it in good condition for writing or drawing.
8. If you must erase during a presentation, remember to erase from the top to the bottom of the board. This prevents chalk dust from causing discomfort to either you or your audience.
9. Be sure that there are no materials near the chalkboard which will detract from the presentation you are giving. Don't lose your audience because of unrelated objects.
10. Never talk to the audience when you are drawing or printing anything on the board. Your audience might not hear you, and besides, their attention will be on what the chalk is making.

These are a few suggestions. With a little practice you will be able to perfect and apply your own techniques in using the chalkboard to put your story across.

MORE SUGGESTIONS FOR CHALKBOARDS:

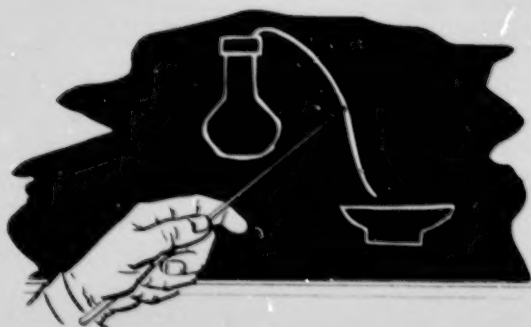
Make use of cutout objects for outlining on the chalkboard. It is best to find a piece of stiff cardboard, draw the object on it, and cut the outline. Stiff cardboard is much easier to use when you are tracing around it with chalk.

A good way to assure giving your viewers a good drawing is to prepare it in advance of the presentation. Just dot or sketch it on the chalkboard lightly and then during the presentation, you can draw it so that the viewers can see it.

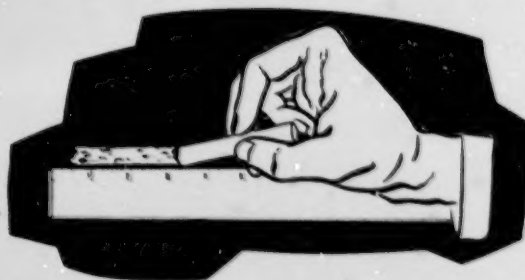


If you have an object, a word or a phrase that you want to be noticed, there is an easy way to do this. Take a piece of paper, prepare the material on it and tape it to the blackboard and build your chalk material around that.

Don't put too much material on the board at one time. If you have a large amount of material to place on the board, you can prepare some of it before the meeting and cover it with a plain sheet of paper or cloth.



You will find good use for a pointer. There are rubber-tipped pointers available commercially. However, you may use a measuring stick, the branch of a tree, or a broom handle. The pointer is useful when you have to show viewers a process which requires a flow of movement. As you point to objects drawn on the blackboard, you should stand to one side, so that all viewers can see the board.



Keep your lines straight by using measuring sticks or other straight edged materials.

AND . . . there is value in giving your viewers something to remember you and your demonstration. Simple duplicated material with illustrations or important points of your presentation are valuable tools for any demonstrator.

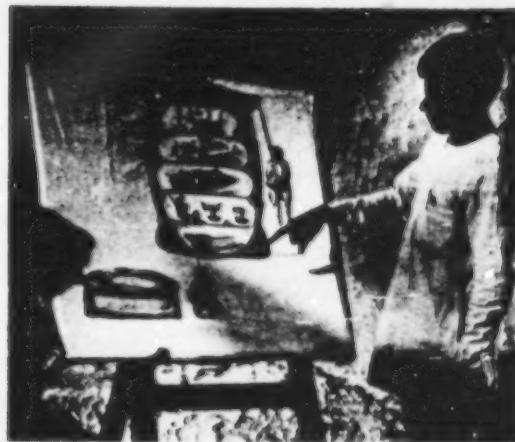
Flannelboards or Felt Boards

YOU CAN MAKE A FELT BOARD

The felt board (sometimes referred to as flannel board) consists of cloth fastened to a stiff backing. The cloth must be felt, flannel, suede or cotton outing, while the backing may be a wall, wallboard, masonite, plywood or even heavy cardboard.

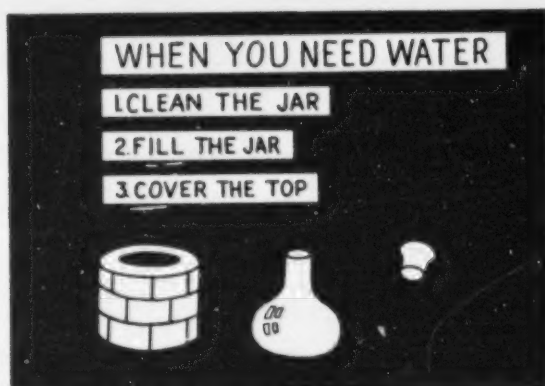
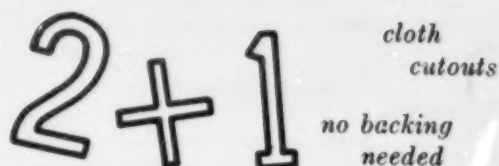
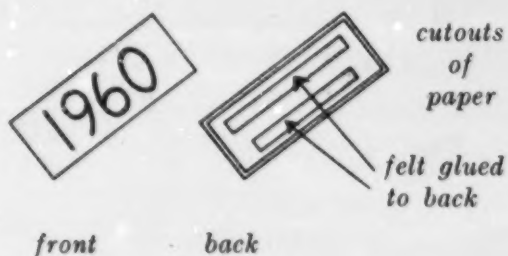
Choose colors which will make parts show up well. Size will be determined by the number of viewers you anticipate. Stretch the cloth taut across the backing and secure with tacks, staples, tape, rubber cement or glue.

Parts for the flannelgraph may be photographs, illustrations, lettered materials, construction paper, colored cellophane, blotters, balsa wood or suede, felt, cotton or flannel material. Cut out desired shapes from any of the above. Be sure cutouts are large enough to be recognized by your audience. If paper material is used, strips of felt, flannel or fine-to-medium sand-



paper must be glued or pasted to the backs of parts.

When not being used as a presentation tool, the felt board can also serve as a bulletin board. By painting the back of the board with flat black or green, or blackboard paint, you can have a blackboard too.



NOTE: Dimensions are not given here. However, a 30"x 40" board should suffice for presentation to an audience of 100 people.

SUGGESTIONS FOR FLANNELBOARDS

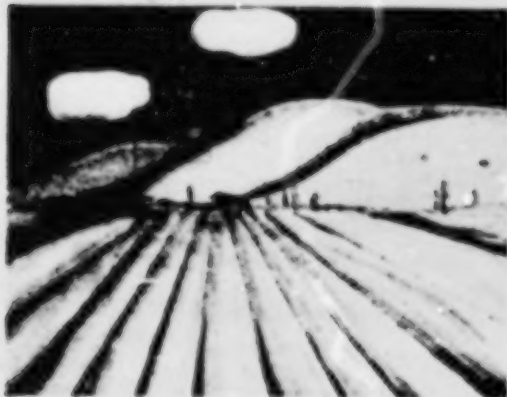
The flannelboard — background on which flannelgraphs are placed — should be a color which will not take away attention from the pictures, but will enhance or make them stand out. The board should vary in size according to the size groups before which it will be used. It is better, if possible, to arrange for small groups rather than large ones where the flannel-graph message may be obscured for some who cannot see it clearly.

A 30x40 inch flannelboard can be built to fold in the middle out of two 30x20 inch pieces of masonite backed with a hinge of canvas and covered with flannel on one side. In traveling, the flannel is turned in and can be readily tucked under the arm to carry.

A portable tripod may be used to hold the flannelboard, and this too can easily be folded up and carried. The flannelgraph pictures, filed in subject envelopes, will fit into a small briefcase. These three light pieces provide portable visual aid equipment that is of minimal cost to put together.

(Edited from Multiplier article "Suggestions for a Flannelboard," USOM/HAITI).

The use of perspective and objects in relative sizes, gives a pleasing three-dimensional effect to this flannelboard.



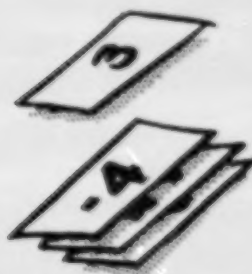
(Adapted from 'Using Visuals in Agriculture Extension Programs,' ICA).

HOW TO USE A FELT BOARD

In preparing the felt board presentation, it is desirable that a detailed written guide should be developed. After the material has been developed, you should rehearse the presentation until you are certain that you can cover the material in the time allotted. Practice your lesson and make sure you have all felt board cards arranged in the proper order and placed around the board or on a near-by table so that they will be accessible with a minimum of movement.

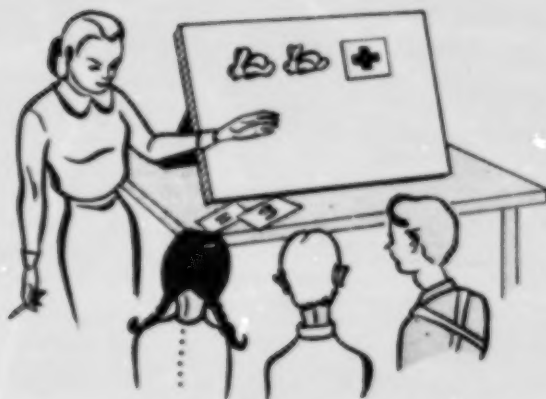
Allow yourself at least half an hour to set the board up and arrange cards before you start the meeting. The first few cards you place on the felt board should assist you in arousing the interest of the group.

After you have aroused their interest, you then present the information in a step-by-step manner. Use your cards in a dramatic way, but make sure that each point is clearly presented to the group. In some cases, it might be wise to take an extra minute or two to clarify a point. As a result, each member of the group should be encouraged to solve the problem by applying the information in the lesson.



It may be advisable for you to allow questions during your presentation. This will help to clarify difficult points which the audience may not understand and puts your presentation on a person-to-person basis. It may even be desirable for you to review the highlights of your presentation with the felt board again.

The real proof in the effectiveness of your presentation will come when you see people doing the things which you have demonstrated.



(Adapted from a booklet "Flannelgraphs," produced in Korea in 1958. The original was written by Mr. Kim Joong Ho and Miss Lee Ok Ki, formerly of the Audio Visual Division, USOM/Korea).

SOME EXAMPLES OF THE USE OF THE FLANNELGRAPH

For Extension Agents

The meetings of rural groups are more interesting when the Agent presents his explanation with the help of the flannelgraph.

Subjects such as soil conservation, seed disinfection, cooperative organization, can be illustrated with good sequences adapted to the rural mind.

In meetings of Young Agricultural Clubs, the flannelgraph helps the boys show their friends what they have learned.

The "Order of the Day" for the meeting can be shown on the panel. If in the last minute a change must be made in the order of the day, it is as easy as changing the labels.

For Schoolteachers

A teacher once said: "There is only one limit in the application of the flannelgraph in learning — THE IMAGINATION OF THE TEACHER." This means that if the teacher is eager, the flannelgraph can be useful to him on many occasions, with surprising results.



- a. Before you begin the talk, put in order your illustrations. *Always put first a figure on the panel and afterward explain it.*
- b. Maintain yourself always beside the panel, so that everybody sees the figures.
- c. Develop the presentation from either side, depending on language.
- d. Let the public participate.
- e. When you put the figures on the flannel, do a small movement down so that the sandpaper "grasps" the flannel's nap.
- f. If you have many figures to show, use two panels one beside the other.
- g. To connect the figures to each other, use *wool yarn*. Use arrows to call attention to interesting points.
- h. Once you have thought over the story of your presentation, prepare small sketches on pieces of paper. Use illustrations which tell your story. This way you will have a UNITED IDEA before you make the definitive drawings.
- i. Use an agreeable illustration as the end of your talk. One which says for example: "And no more for today. Thanks a lot", or something like that.

(Adaptation from Audio-visual Series Booklet No. 3, prepared by Gustavo Gatti, and revised by Juan E. Diaz Bordenave, Audio-visual Center, USOM/Paraguay, 1956. The original booklet was illustrated by Tomas Borja.)

Bulletin Boards

YOU CAN MAKE A BULLETIN BOARD

Many kinds of bulletin boards may be used to meet your needs. Determine the limitations of space and location and then decide if you need a fixed, folding, movable or suspended board.

Bulletin boards may be made of any soft material. Softwood, beaverboard, celotex, composition board, plywood, linoleum, backs of old blotting pads or heavy bristol board are some suggested materials. Cut the material to the desired size, and punch holes on either side of the top so that the board can be hung.

For background of the board you may want to leave it in its original color, or you may wish to paint it, or you might decide to cover it with cloth. If you paint the board, remember that the background color should make the materials placed on the board stand out in contrast. Cloth covering can be burlap, denim, felt, flannel or monk's cloth. Framing the bulletin board with colored tape, wooden framing, or glued colored paper will make it more attractive.

A recent addition to the bulletin board family is the peg board. Materials needed for the peg board consist of heavy composition board with holes punched all over it, and small wooden pegs. This makes possible the display of three-dimensional objects.

Metal hooks are also available for hanging objects from peg boards.



*peg board for
three-dimensional
effects*



original

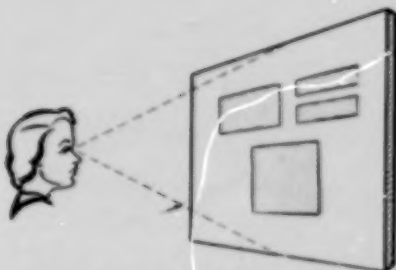


cloth



painted

*Surfaces can be prepared to meet needs,
within limitations of available materials.*



*Placement of bulletin boards are as im-
portant as what you put on them. Hang
the board eye-level to your audience.*

NOTE: A felt board may double for you
as a bulletin board when it is not being
used, or if you have a portable blackboard,
the back of that may be covered with ma-
terial for bulletin board use also.

USING BULLETIN BOARDS

A well-placed bulletin board can be of
great help to you and your program. It
can be used for many purposes:

- To announce meetings or film showings
- To keep people interested in the prog-
ress of your program
- To teach new methods and to adapt
existing practices to local situations

PROGRESS



MEETINGS AND FILM SHOWINGS



NEW METHODS AND NEW IDEAS

All these purposes may be served by the use of

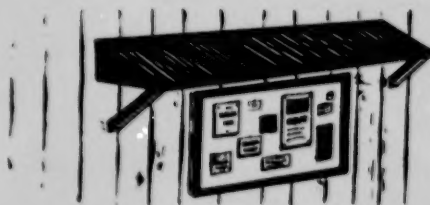
photographs	notices
drawings	publications
posters	wall newspapers

With these, you should use simple, but meaningful captions, printed carefully, and placed near the materials which they relate to.

Here are a few rules for you to follow when you prepare a bulletin board:

- Make your layout simple and attractive. Place the materials in various positions and choose the one you think best.
- Don't overload your bulletin board . . . keep to related ideas and one theme.

- Use neutral color for your background.
- Use bright colors for materials or words which you want to be made important.
- Make the lettering simple, with words easy to understand.
- Change the material often and keep the information timely.



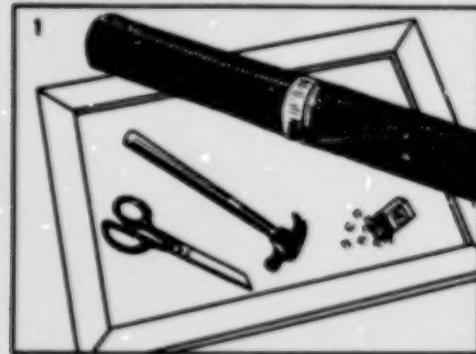
If your bulletin board is to be placed outside, it will be exposed to weather conditions. Therefore, it should be placed underneath an overhanging roof. If no roof of this kind is available, you may be able to build a temporary shelter for it, or even build a frame with a glass front to protect the material.

Magnet Boards

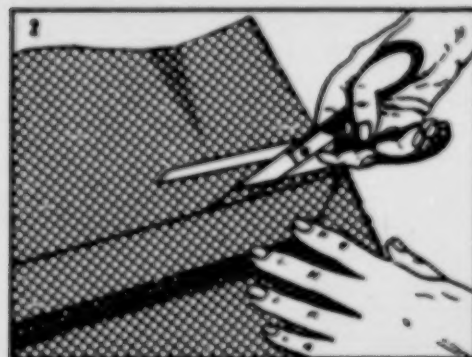
24/12

YOU CAN MAKE A SCREEN MAGNETIC BOARD

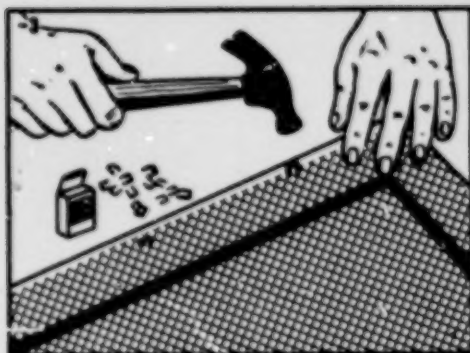
The screen type magnetic board is light, inexpensive and can be made with a few materials and tools by anyone. An ordinary large picture frame, a piece of galvanized steel fly screen cut to fit the frame, some staples or carpet tacks and a half dozen small magnets comprise all the necessary materials. The magnets can be purchased in a variety of sizes and colors.



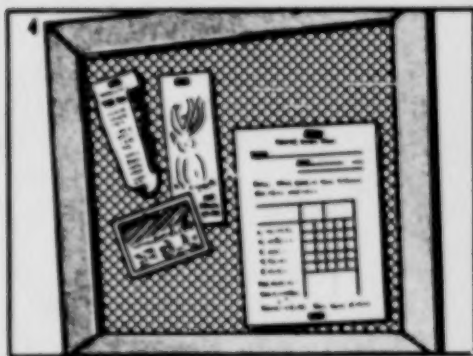
The frame is placed face down on a table or floor and the screen is stretched over it and stapled or tacked along the edges. This completes the construction work. The frame may be painted, but it is unnecessary to paint the wire screen since wall colors will show through.



MAGNETBOARDS



Completed frames may be hung over classroom walls, blackboards or conventional bulletin boards. In some instances, the frames can be used in school administrative offices as partitions between desks. They not only serve as bulletin boards, but permit the passage of light and air as well.



The magnets can be glued at intervals on a neutral or gaily colored string, one end of which is secured to the frame of the magnetic board.

(Adapted from Teaching Tools, the Manual of Classroom Tested Techniques.)

Magnetboards differ from flannelboards, only in construction. Their use as a visual teaching device is very similar to the flannelgraph. The size also is similar.

Instead of cardboard, plywood, or pressed wood backing however, the magnetboard must have a sheet iron backing to attract the small magnets that are used to hold up the parts.

Since paint does not interfere with the magnetic attraction, you may paint your board to provide contrast between the background and the parts and to avoid rust damage. The paint most commonly

used is chalkboard slating, and the board therefore can double as a magnetboard and chalkboard.

Twenty-eight gauge sheet iron usually is used for the backing. This is light enough to carry yet durable enough to stand the wear that visual equipment gets in normal use. Galvanized iron window screen also works fairly well if it is properly framed to make it rigid.

Small magnets are glued, taped or fastened with wax to the backs of the parts. When the parts are placed on the surface of the board, the attraction between the magnets and the metal of the board holds the parts in place. Wind will not blow the parts from the board.

Three examples of magnetic boards which were used in teaching by television. The black arrow is movable and is used with the measuring diagram. The white arrow in the lower left board can be moved to the target. A magnet on the back of the boards holds each of the arrows in place. As the magnet at the back is slid around the board,

the arrows will move correspondingly. The metal board at the lower right holds the parts of the circles to the board and in front of the board are some sectioned parts with magnets fastened to them.

(Adapted from ICA's "Using Visuals In Agricultural Extension Programs").



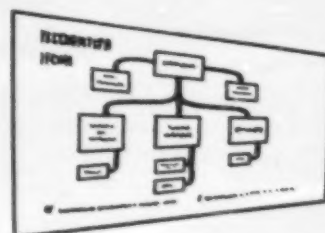
Charts

YOU CAN MAKE A CHART

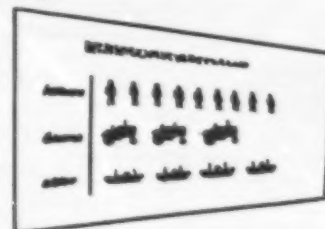
Charts and graphs are pictures of relationships and changes. They can help you show or compare changes that have occurred. There are several kinds of charts.



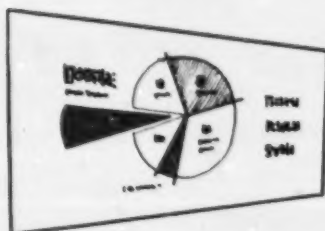
Bar charts are made of a series of blocks along a measured scale and can be used for comparison or of a project or specific activity.



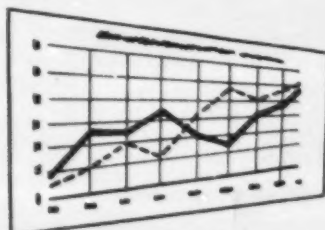
Organization charts can illustrate organizational and administrative relationships. Lines connected to boxes can show levels of authority.



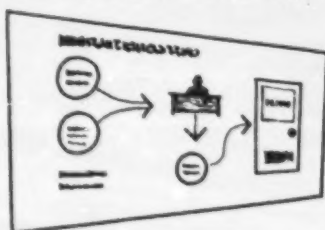
Pictorial graphs can be used to get a clear picture of the message by use of drawings or symbols representing the subject. The symbols may indicate quantities shown in comparing numbers of items at given points in time.



Pie charts are used to show how several parts make up the whole. Useful for showing budgetary proportion, percentage breakdowns, etc.



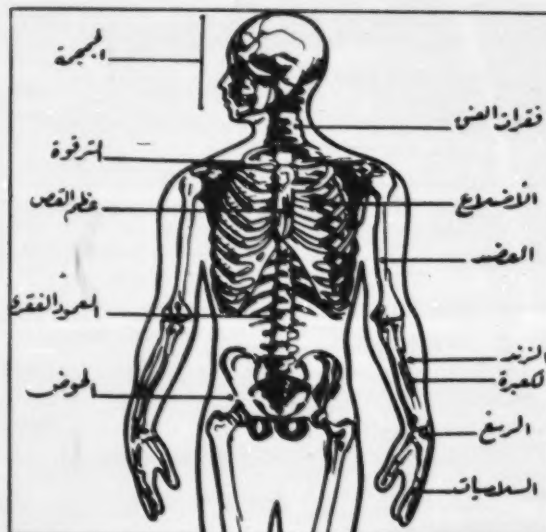
Line charts can be utilized to show trends and relationships, growth or expansion.



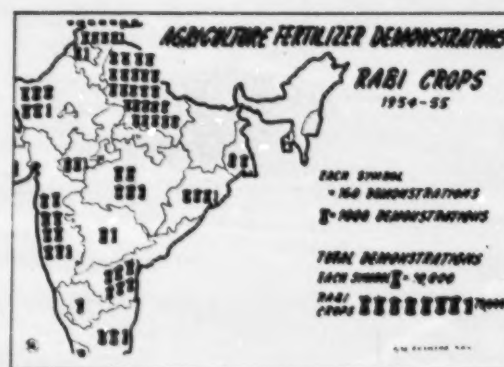
Flow charts help to explain sequence in time or a process of doing something.

Here are some suggestions regarding preparation of charts:

1. Keep them simple by using one idea.
2. Don't use too much data.
3. Use large sheets of paper and allow plenty of space.
4. Use symbols, words or color to explain the chart. Make it attractive.
5. Use lines and bars in only one proportion.
6. Compare like units and avoid confusion to the viewer.



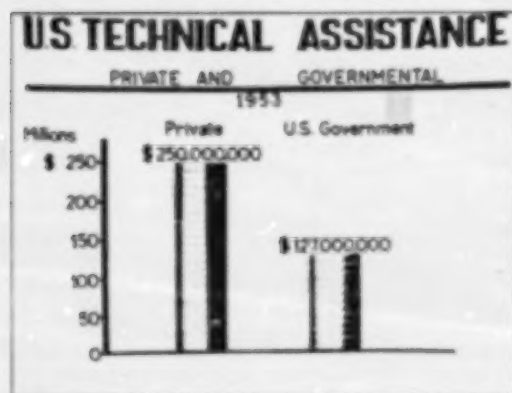
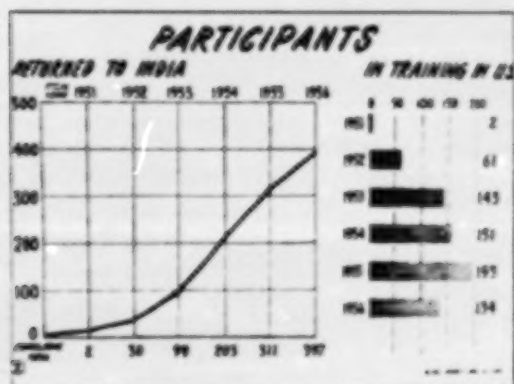
This portion of a silk screen chart shows how charts can explain parts of a whole object. The drawing is simple and realistic and only the necessary words and phrases were used.



Maps, combined with symbols are an effective way to make statistics realistic and meaningful.

Always remember that color can add much toward effectiveness of any visual material you may want to produce.

Here are some examples of effective charts:



OVERLAY CHARTS

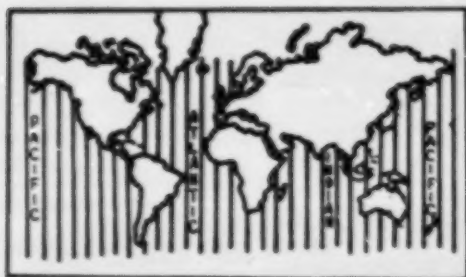
These 5 photographs on the use of overlays with a map, serve to point out the value of teaching with overlays. They are easy to make and the materials needed are inexpensive.



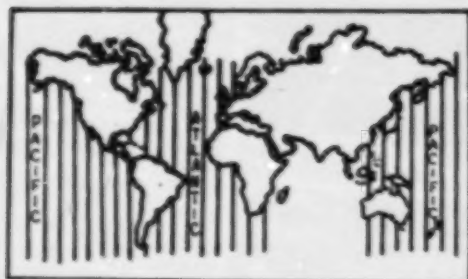
Map painted with India ink on cardboard



First overlay showing Pacific Ocean



Second overlay with Atlantic Ocean



Third overlay with Indian Ocean

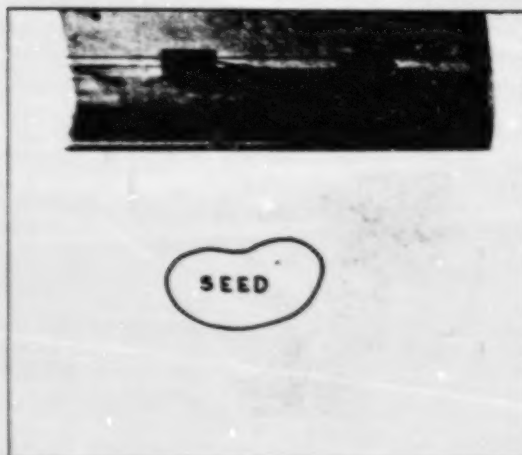


Fourth overlay with Antarctic and Arctic Oceans

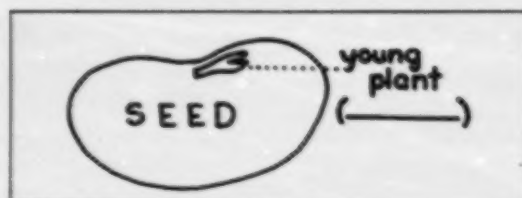
Materials for the overlay consisted of a cardboard sheet, 4 acetate sheets, India ink, a pen and 2 strips of tape.

This series was used as part of a social studies unit to teach locations of oceans of the world. Though used as a television presentation, the same series would be useful in small group demonstrations.

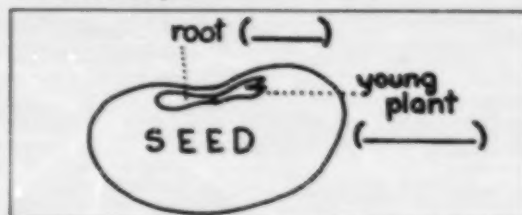
The following overlay chart was effectively used to teach children the parts of a seed.



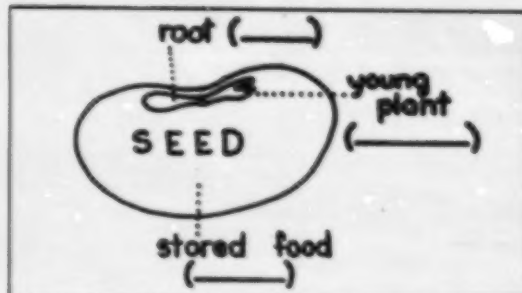
Line drawing of a seed on backing sheet.



First overlay



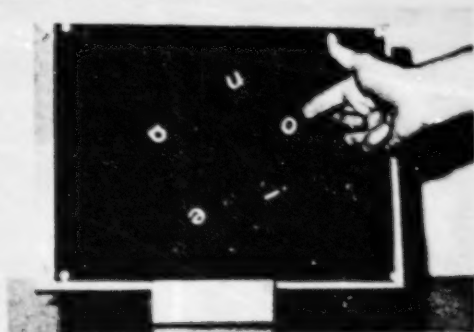
Second overlay



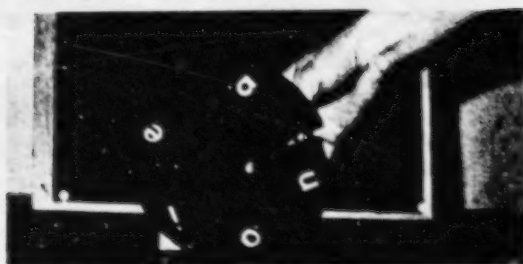
Third overlay

PULL CHARTS

Pull charts are useful in showing movement or in concealing material until you need it for the sequence of a unit which you are teaching.



This pull chart is easily made



Cut a slit in the top half of the cardboard sheet. The slit should be $\frac{1}{2}$ of the diameter of the circular cardboard.

Cut a slit in the cardboard circle to $\frac{1}{2}$ the diameter of the circle.



Slide the cardboard circle into the slit of the cardboard square. Now you are ready to use it as a teaching device. A little practice and you will find it most useful as a teaching aid.

Posters

YOU CAN MAKE A POSTER

A poster is an informational or educational tool with which to reach many people in many locations. Posters can be used for several purposes. Here are a few examples:

motivation of new ideas

informing people of meetings or film showings

accident prevention

new processes

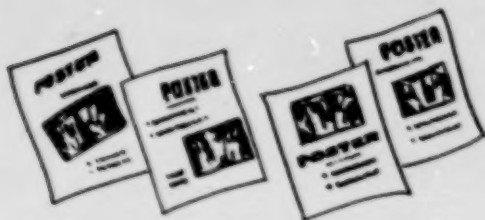
Before making a poster, you should ask yourself . . . Who am I trying to reach?

What do I want to tell?

Backing for posters may be colored construction paper, Bristol board, cardboard, newsprint or similar material. Materials which you will use in making the poster will depend on (a) the nature of your theme, (b) availability and your ingenuity.

BEFORE you make a poster —

- decide your theme
- decide which words are most suitable
- sketch one or more layouts and decide on the best
- gather all needed materials to prepare the poster



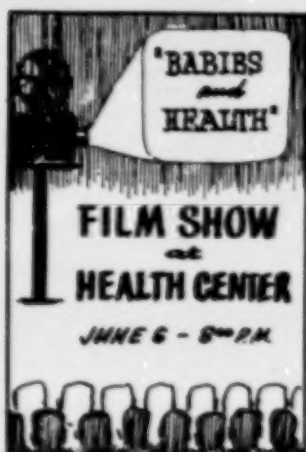
several sketched layouts will help you determine the most effective design to use

THEN — you are ready to make a poster

- prepare the lettering
- add desired objects
- cover edges of poster with opaque tape
- erase smudge marks

POSTERS
CAN . . .

- MOTIVATE
- EDUCATE
- INFORM
PEOPLE THE
WORLD OVER



When you display your poster be sure to find a place where there is adequate light and where many people will see it

THESE EXAMPLES POINT TO THE SIMPLICITY IN ILLUSTRATION AND THE USE OF FEW WORDS TO TELL THE STORY.





SOME VISUAL THINKING WHEN YOU WANT TO MAKE
A POSTER

DYNAMIC POSTERS HAVE



- BREVITY
- SIMPLICITY
- IDEA
- LAYOUT
- COLOUR

MORE VISUAL THINKING WHEN YOU WANT TO MAKE
A POSTER

USE SILHOUETTES & SYMBOLIC SHAPES



LETTERING CONTD.

SPACING IS IMPORTANT—

MECHANICAL 
SPACING

WRONG

SPACING
OPTICAL 

RIGHT

Flip Charts

YOU CAN MAKE A FLIP CHART [FLIPBOOK]

The flip chart has two rectangular wooden covers.

Use plywood to make these covers. You can also make them of thin hard-wood boards. These covers are joined by hinges, on one of their narrow sides, to two wooden strips. The wooden strips will thus act as the back of a book and the covers will open outward.

Along the middle of the strips, and at equidistant points, make perforations to let $3/16"$ x $1\frac{1}{2}"$ bolts go through to hold the plates and covers together. When the flip chart is being used, the wooden strips will constitute its upper end.

To give stability to your flip chart when placing it on a board or a stand for your demonstrations, proceed as follows:

Drill a $1/8"$ (3 mm) hole on the mid-point, about $1/4"$ ($1\frac{1}{2}$ cm.) from the lower edge. Pass through this hole a piece of cord about $1/8"$ (3 mm) thick and 11" (28 cm.) long. Make a knot at the end of this cord.

Make a $1/6"$ (2 mm) wide and $1\frac{1}{2}"$ ($1\frac{1}{2}$ cm.) vertical slot on the mid-point of the other cover's lower edge.

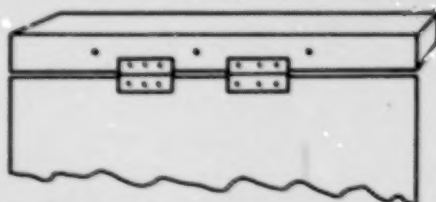
To keep the flip chart open while you use it, pass the cord through the slot and pull it until the second knot catches in it. That way the flip chart will stand up like a V upside down.

You can also make your flip chart multi-purpose by doing the following:

Paint one of the covers' inside surface with flat black or green paint; if possible, use special blackboard paint. You can thus provide yourself with a small blackboard.

Cover the inside of the other cover with a piece of light blue flannel. Attach the flannel only by the edges so that it offers a flat, unwrinkled surface. That gives you a small flannelgraph.

you can use metal, canvas or cloth hinges



*section
showing
hinging and
perforating*

ready to use

NOTE: Outside dimensions are not given here since the preparation of a flip chart could be made in any size to meet your needs.

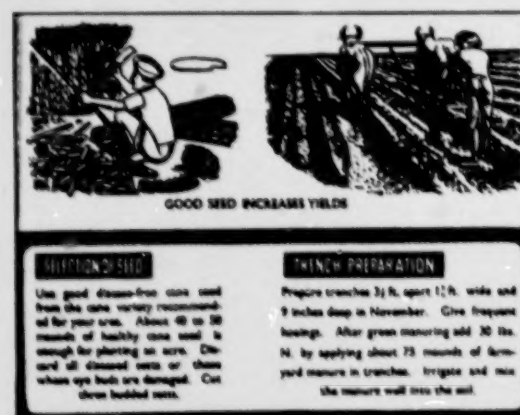
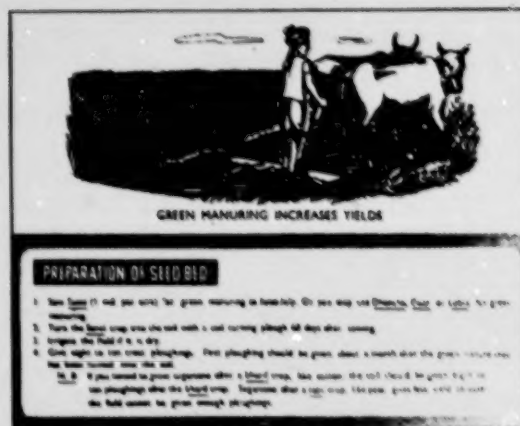
USING THE FLIPBOOK

One technique for transmitting information readily to groups is the flipbook.

One such flipbook deals with teaching spraymen how to spray houses with DDT in the residual spray control of malaria. It was first developed in Indo-china and then adapted to Burma. The book, widely used in these two countries, consists of 24 pages. It sets forth five specific points, and is designed to present the theoretical material which a spray crewman needs to know in order to be an effective operator in residual spray work.

The principal part of the flipbook concerns itself with the actual steps in mixing, straining, and spraying the DDT mixture. It gives full instruction about the mechanism and maintenance of the spray can, giving names of all parts and complete directions on use. Material on how to prepare houses for spraying and the actual procedures of spraying, with clear exposition and proper repetition, is presented. The flipbook is used as an integral part of the training of spraymen, and since all communication is by way of graphics and lectures from the teacher, it is possible to communicate with illiterate individuals.

(Edited from article "Flipbooks" written by Dr. Gerald Winfield O/CM, ICA/W).



These two examples are taken from a small flipbook produced in India, and extensively used.

Note the information for the demonstrator found on the pages.

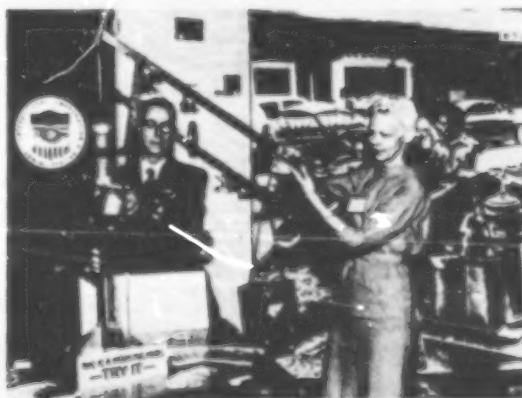
The size of your flipbook is determined by the number of people you plan to reach at any given demonstration. If you are going to talk to three or four people at one time you may only need a flipbook about 9" x 12".

Exhibits and Displays

EXHIBITS AND DISPLAYS

The primary purpose of an exhibit or display is to get the attention of masses of people, to motivate them, interest them or get them to take some action on the subject you are showing. The information which is presented will be much more detailed than you could give with any other media, and several kinds of visuals may be used to attract the viewer's interest. Of course all of the material should be prepared so that each part of the exhibit is directly related to the total presentation. Viewers should be able to acquaint themselves as completely as possible with your theme.

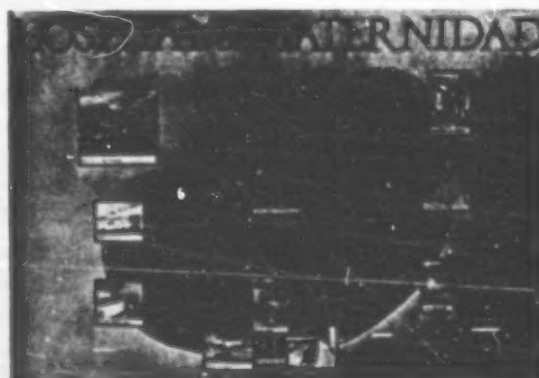
As in preparation of all visuals, the first and most important step is the planning of the exhibit. You must decide who the audience is going to be, and what you want the audience to do after they have seen the exhibit.



Exhibits should have some single device which will attract the people to it. This may be a splash of color, continuous slide showings, a tape recording, an electric device, or a moving object.



The most effective exhibits are built around a single idea, using simple, understandable pictures or illustrations and few words. It is suggested that you prepare a cardboard model of the exhibit in scale to the actual space which you can use. If possible, ask audio visual specialists to assist you in selecting the materials to be used, the colors and the form which the exhibit will take.

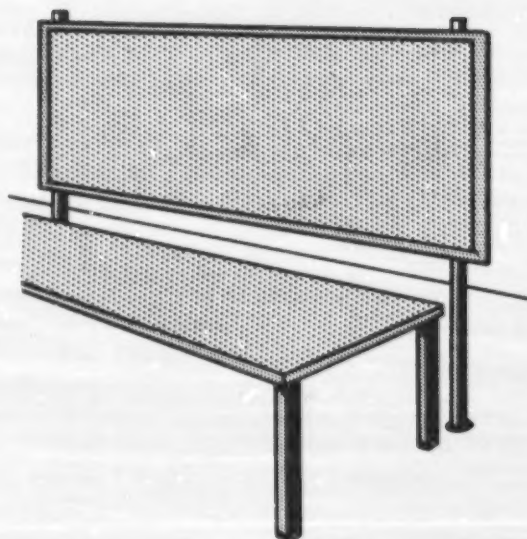


Make the central idea of the exhibit stand out, so that viewers will know and understand what you are trying to show them. All other materials used, though they relate to the central idea, should be secondary in getting the attention of the viewers.

Here are some suggestions to help you in planning and preparing your exhibit or display:

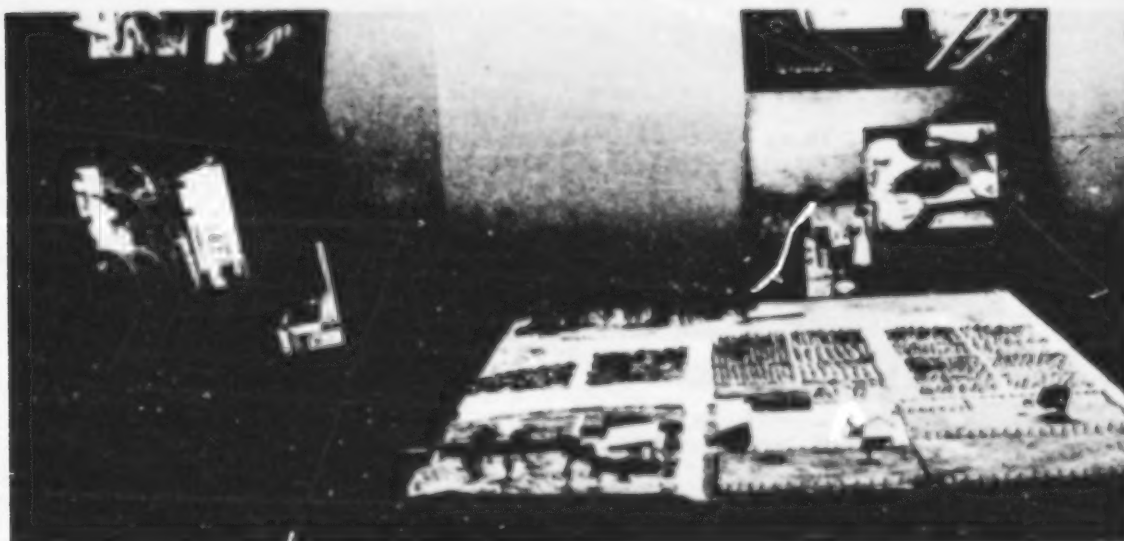
1. Be sure that the viewer can identify his interests, experiences and needs with your presentation.
2. Keep all written material to a minimum. You can assist the viewer in getting the primary ideas of the exhibit by varying the sizes of the captions or signs which you use.
3. A neutral background is desirable, with two or three colors used for attention-getting purposes.
4. Don't use too many materials in your exhibit. Let a few outstanding, well-placed visuals present the idea. If there are too many materials used, the viewer may not be able to understand what you are trying to show him.
5. The central or key material for your exhibit should be near the eye level of your audience. Remember that materials above seven feet or below three feet will not be seen as well and will not attract as much attention.

Health centers, schools, agriculture extension offices or special government departments may have space where permanent exhibits can be set up, or where the same background support can be used for different exhibits.

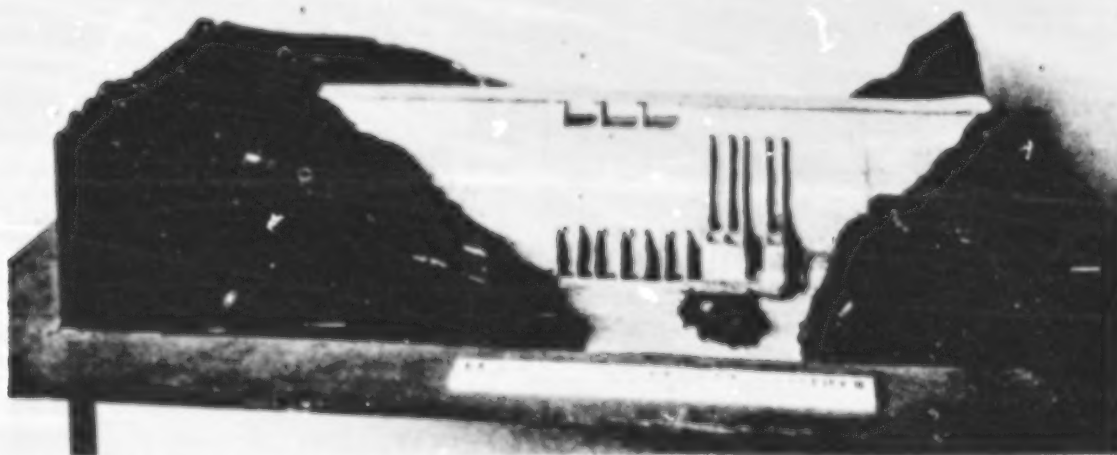


Permanent or changing exhibits can be displayed on walls, tables, bulletinboards, or panels which are fastened to the floor. You should decide if you want your exhibit to be placed on walls, on tables or set up with supports. If the exhibit is to be carried from village to village, consideration must be taken in building it so that it is portable and easy to handle. Small hinged bulletinboards can be prepared with the material permanently placed on them. Loose objects such as specimens, models, signs, etc., may be carried in boxes, and placed in position any time you set up the display.

(Adapted from "Using Visuals in Agricultural Extension Programs, ICA").



Notice that the photographic displays along the walls are separated so that full attention can be given to the individual subjects being shown. There are no other objects or models on the walls to detract from the viewers' attention. On the table is a realistic model showing examples of a well-irrigated farm and a farm which has not used irrigation methods.



This table model of a dam construction always attracts viewers. Such materials for exhibits can be made from papier-mache, plaster of paris, or clay and painted to give it a realistic look. If detailed models are made which contain parts that are easily breakable, it might be advisable to cover the display with cellophane or to set it back far enough so that viewers will not break it.



The use of real objects, such as the sinks and faucets with running water, makes this display realistic to the viewers. The purpose of this particular exhibit was to point to the importance of keeping the water turned off when it was not needed and that by doing this, thousands of gallons of water were saved during the year. Notice the arrows pointing down to the objects from the titles. The use of tile on the background provides a realistic setting for the sinks.

This large display to show various factors which influence family health, successfully utilized photographs and illustration with few words.

